

## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification<sup>7</sup>:

C12P 41/00

A1

(11) International Publication Number:

WO 00/47759

(43) International Publication Date:

17 August 2000 (17.08.00)

(21) International Application Number: PCT/CA00/00144

(22) International Filing Date: 11 February 2000 (11.02.00)

(30) Priority Data:

60/119,756	11 February 1999 (11.02.99)	US
60/119,885	12 February 1999 (12.02.99)	US

(71) Applicant (for all designated States except US): BIOCHEM PHARMA INC. [CA/CA]; 275 Armand-Frappier Boulevard, Laval, Québec H7V 4A7 (CA).

(72) Inventors; and

(75) Inventors/Applicants (for US only): CIMPOIA, Alex [CA/CA]; Apartment 22, 3550 Ridgewood Avenue, Montreal, Quebec H3V 1C2 (CA). JANES, Lana [CA/CA]; 299 Roehampton Avenue, Apartment 1122, Toronto, Ontario M4P 1S2 (CA). KAZLAUSKAS, Romas [CA/CA]; 4625 Hingston Avenue, Montreal, Quebec H4A 2K2 (CA).

(74) Agent: SWABEY OGILVY RENAULT; Suite 1600, 1981 McGill College Avenue, Montréal, Québec H3A 2Y3 (CA).

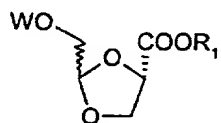
(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

## Published

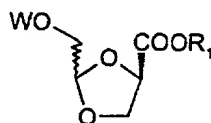
With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: STEREOSELECTIVE SYNTHESIS OF NUCLEOSIDE ANALOGUES



(A)



(B)

## (57) Abstract

The present invention provides a process for making stereochemically pure dioxolane nucleoside analogues. The process includes the use of hydrolytic enzymes for separating  $\beta$  and  $\alpha$  anomers from an anomeric mixture represented by formula (A) or formula (B) wherein W is benzyl or benzoyl; R<sub>1</sub> is selected from the group consisting of C<sub>1-6</sub> alkyl and C<sub>6-15</sub> aryl.